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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,167	07/11/2001	Kenichiro Suetsugu	43888-112	7945
20277 7590 01/16/2008 MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			EXAMINER PHAN, THIEM D	
			ART UNIT 3729	PAPER NUMBER
			MAIL DATE 01/16/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/889,167

Applicant(s)

SUETSUGU ET AL.

Examiner

Tim Phan

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 6,8,11-14 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6,8,11,14 and 21 is/are rejected.
- 7) ☒ Claim(s) 12 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/10/07, 5/15/07.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. In view of the Appeal Brief filed on 05/23/07, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.113 (as this Office action is final); or,
- (2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

***Election/Restrictions***

2. Applicants' withdrawal of Claims 11-13, filed on 12/27/04 is acknowledged and upon further consideration by the examiner, the withdrawn claims are rejoined because the application is a PCT case where there is no unity of invention as the independent Method and Product Claims do form a single general inventive concept under PCT Rule 13.1 and they do have the same or corresponding special technical features under PCT Rule 13.2.

An Office Action on the merits of Claims 6, 8, 11-14 and 21 now follows.

***Oath/Declaration***

3. The oath or declaration is defective because it does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR 1.56. A correct statement should read "I acknowledge the duty to disclose information which is material to patentability of this application in accordance with Title 37, Code of Federal Regulations Section 1.56."

***Specification***

4. The disclosure is objected to because of the following informalities:

On page 1, before "Background Art", insert:

"Cross-Reference to Related Application

This application is the U.S. National Phase under 35 U.S.C. 371 of International Application PCT/JP00/00058, filed 01/07/00, which claims priority to JAPAN Patent Application No. HEI11-004411, filed 01/11,99.”

### ***Claim Objections***

5. Claims 12 and 13 are objected to because of the following informalities and the needs to clarify the antecedent:

- In Claim 12, line 9, after “discriminating”, delete “an” and insert: -- the --;
- In Claim 12, line 9, after “parts from”, delete “an” and insert: -- another --;
- In Claim 13, line 6, after “appliance from”, delete “an” and insert: -- the --;
- In Claim 13, line 7, after “remove”, delete “an” and insert: -- the --.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language “... identification information is recognizable by a human.” is vague and indefinite. It is confused and unclear if and how the information or record or database stored in a memory IC can be recognizable or analyzed directly by a human.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 6, 8, 11, 14 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheidt et al (US 5,654,902) in view of Applicants' Admitted Prior Art, hereinafter AAPA.

**With regard to claim 6**, Scheidt et al teach a product or article such as TV receiver (Fig. 1, 1; col. 2, line 31) with recyclable components under an environment point of view (Col. 1, lines 7-9, lines 18-20), having a circuit board (Fig. 1, 2 or 3) with parts soldered on board, and identification information stored in memory IC such as EPROM (Fig. 1, 2a; col. 4, lines 29-32) containing all manufacturing data including composing materials, presence of hazardous materials (Col. 3, lines 50-60) collected for help recycling of said article during the removal of hazardous materials or the recovery of precious metals and sorting of plastic fractions (Col. 3, lines 62-65). However Scheidt et al do not specifically describe the composite materials and hazardous materials as of lead free solder or lead solder used on circuit board, which identification data is stored in the memory IC.

AAPA teaches an article, which has a circuit containing the type and composition of lead solder or lead free solder used on soldered parts or chip terminals of circuit board, in need for recycling (Page 2, last paragraph – page 3, 1<sup>st</sup> paragraph).

It would be obvious to one of ordinary skill in the art at the time the invention was made to provide Scheidt et al with any reasonable number of data, including the type and composition

of lead free solder or lead solder data to the stored information in the memory IC, in order to obtain optimum efficiency of the recycling during the removal, the recovery and the sorting of different materials. Furthermore, since the article has an onboard memory IC, which can be cheaply and exponentially expanded in gigabyte or terabyte data storage, a further input of additional data such as solder composite, radioactive material, music/audio and video signals, etc... is just mere obviousness in facilitating the recycling process.

**With regard to claim 8**, Scheidt et al teach a product or article such as TV receiver (Fig. 1, 1; col. 2, line 31) with recyclable components under an environment point of view (Col. 1, lines 7-9, lines 18-20), having a circuit board (Fig. 1, 2 or 3) with parts soldered on board, and a housing (Col. 2, line 24) accommodating said article with identification information stored in memory IC such as EPROM (Fig. 1, 2a; col. 4, lines 29-32) containing all manufacturing data including composing materials, presence of hazardous materials (Col. 3, lines 50-60) collected for help recycling of said article during the removal of hazardous materials or the recovery of precious metals and sorting of plastic fractions (Col. 3, lines 62-65). However Scheidt et al do not specifically describe the composite materials and hazardous materials as of lead free solder or lead solder used on circuit board, which identification data is stored in the memory IC.

AAPA teaches an article, which has a circuit containing the type and composition of lead solder or lead free solder used on soldered parts or chip terminals of circuit board, in need for recycling (Page 2, last paragraph – page 3, 1<sup>st</sup> paragraph).

It would be obvious to one of ordinary skill in the art at the time the invention was made to provide Scheidt et al with any reasonable number of data, including the type and composition of lead free solder or lead solder data to the stored information in the memory IC, in order to

obtain optimum efficiency of the recycling during the removal, the recovery and the sorting of different materials. Furthermore, since the article has an onboard memory IC, which can be cheaply and exponentially expanded in gigabyte or terabyte data storage, a further input of additional data such as solder composite, radioactive material levels, music/audio and video signals, etc... is just mere obviousness in facilitating the recycling process.

**With regard to claim 8**, Scheidt et al teach a process of recycling wastes of an electrical appliance or TV set comprising a product or article such as TV receiver (Fig. 1, 1; col. 2, line 31) with recyclable components under an environment point of view (Col. 1, lines 7-9, lines 18-20), having a circuit board (Fig. 1, 2 or 3) with parts soldered on board, and a housing (Col. 2, line 24) accommodating said article with identification information stored in memory IC such as EPROM (Fig. 1, 2a; col. 4, lines 29-32) containing all manufacturing data including composing materials, presence of hazardous materials (Col. 3, lines 50-60) collected for help recycling of said article during the removal of hazardous materials or the recovery of precious metals and sorting of plastic fractions (Col. 3, lines 62-65), said process comprising a step of identifying wastes or hazardous materials and reusable materials of electrical appliance from those of various electrical appliances based on the identification information (Col. 3, lines 60-65). However Scheidt et al do not specifically describe the composite materials and hazardous materials as of lead free solder or lead solder used on circuit board, which identification data is stored in the memory IC.

AAPA teaches an article, which has a circuit containing the type and composition of lead solder or lead free solder used on soldered parts or chip terminals of circuit board, in need for recycling (Page 2, last paragraph – page 3, 1<sup>st</sup> paragraph).



It would be obvious to one of ordinary skill in the art at the time the invention was made to provide Scheidt et al with any reasonable number of data, including the type and composition of lead free solder or lead solder data to the stored information in the memory IC, in order to obtain optimum efficiency of the recycling during the removal, the recovery and the sorting of different materials. Furthermore, since the article has an onboard memory IC, which can be cheaply and exponentially expanded in gigabyte or terabyte data storage, a further input of additional data such as solder composite, radioactive material levels, music/audio and video signals, etc... is just mere obviousness in facilitating the recycling process.

**With regard to claim 14**, as best understood, Scheidt et al teach that the identification information is provided by some memory IC such as PROM, EPROM, EEPROM (Col. 4, lines 29-32) or the like to accommodate larger data information, which can be recognizable by a technician by retrieving/reading data through a memory reader device.

**With regard to claim 21**, Scheidt et al teach that the identification information includes a labeling or name or symbol carried on said housing (Col. 1, lines 23-27).

#### ***Allowable Subject Matter***

10. Claims 12 and 13 are objected to minor formalities, but would be allowable if rewritten to overcome the objection.

#### ***Response to Arguments***

11. Applicants' arguments (5/23/07) with respect to claims 6, 8, 14 and 21 have been considered but are moot in view of the new grounds of rejection.

*Conclusion*

12. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

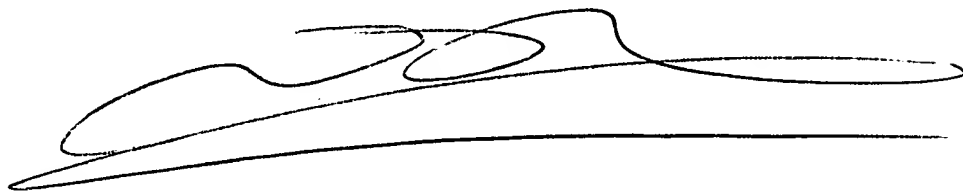
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Phan whose telephone number is 571-272-4568. The examiner can normally be reached on M & Tu, 6AM - 2PM, and W & Th, 9AM – 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tim Phan  
Examiner  
Art Unit 3729

tp  
January 10, 2008



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